Amendments to the claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 to 11 are canceled

12. (currently amended) A method for the ordered release of a subset of connections of a number of connections provided on a single logical trunk linking a first network entity and a second network entity, the logical trunk having a variable carrying capacity for said connections, the method comprising the steps of:

(a) associating a priority indicator and a traffic rate with each of the connections, the priority indicator being selected from a priority hierarchy comprised of a plurality of priority levels which varies from highest priority to lowest priority;

(b) upon detection of a reduction of the carrying capacity of the logical trunk to a level sufficient to sustain only a reduced number of said connections, selecting from said number of connections a group of connections to be released having an aggregate capacity at least equal to said reduction in capacity of the logical trunk; and

(c) following said selection of connections to be released, releasing every connection of said group of connections in a sequence which corresponds to the priority hierarchy from the highest priority level to the lowest priority level while maintaining the remaining connections in said number of connections not included in said selected group of connections.

13. (previously presented) The method according to Claim 12, wherein the selecting of a group of connections comprises the further steps of:

selecting connections for release from said number of connections in a sequence beginning with the connection associated with the lowest priority level, until the aggregate of the capacity of selected connections is greater than or equal to said reduction in capacity of the logical trunk; and

compiling an ordered release list enumerating each connection selected for release.

14. (original). The method according to Claim 13, wherein the step of compiling the ordered release list comprises the step of inserting each connection selected for release into a table in a location corresponding to the priority level associated with the connection such that the connections in the table are ordered in a sequence from the connection associated with the highest priority level to the connection associated with the lowest priority level.

15. (original) The method according to Claim 14, wherein the connection path for each connection is established by a connection establishment request message corresponding to the connection, the connection establishment request message including priority level information, traffic rate information, and information identifying a source and a destination for the corresponding connection.

16. (original) The method according to Claim 15, wherein the step of releasing the connections in said release list comprises the step of transmitting a release message to the source of a connection in said release list.

17. (original) The method according to Claim 16, wherein the logical trunk comprises a plurality of physical links.

18. (original) The method according to Claim 17, wherein the signalling communication network is an ATM communications network.

19. (currently amended) The method according to Claim 18, wherein the logical trunk is an IMA trunk comprising a plurality physical links, and said carrying capacity is determined by the number of operative said physical links making up the IMA trunk.

20. (original) The method according to Claim 19, wherein the priority indicators and traffic rates are associated with their respective connections in a look-up table in a memory in the first network entity.

21. (original) The method according to Claim 14, wherein connections associated with a common level of priority are list in the release list in a sequence corresponding to the traffic rates of the connections.

22. (original) The method according to Claim 14, wherein connections in the release list associated with a common level of priority are ordered in sequence from the connection having the lowest traffic rate to the connection having the highest traffic rate.

Claims 23 to 33 are canceled

34. (currently amended) An apparatus for the ordered release of connections carried on a logical trunk having a variable carrying capacity for said connections, the logical trunk being provided in a connection-oriented communications network between a first network entity and a second network entity and carrying a number of connections, the apparatus comprising

(a) means for storing a priority indicator and a traffic rate associated with each of the connections of said number of connections, the priority indicator being selected from a priority hierarchy which varies from highest priority to lowest priority;

(b) means for selecting from said number of connections, upon a reduction of the carrying capacity of the logical trunk to a level sufficient to sustain only a reduced number of said connections, a group of connections to be released having an aggregate capacity at least equal to said reduction in capacity of the logical trunk; and

(c) means for directing the release of every connection of said group of connections in a sequence which corresponds to the priority hierarchy from the connection of the group associated with the highest priority level to the connection of the group associated with the lowest priority level while maintaining the remaining connections in said number of connections not included in said selected group of connections.

35. (original) The apparatus according to Claim 34, wherein the storing means is a memory.

36. (original) The apparatus according to Claim 35, wherein the memory comprises a look-up table and each connection is stored with a priority indicator and with a traffic rate in the look-up table.

37. (previously presented) The apparatus according to Claim 36, wherein the selecting means selects connections for release from said number of connections in a sequence beginning with the connection associated with the lowest priority level, until the aggregate capacity of the selected connections is greater than or equal to the reduction in capacity of said logical trunk.

38. (original) The apparatus according to Claim 37, wherein the selecting means comprises a means for compiling an ordered release list in the memory enumerating each connection of said group of connections in a sequence which corresponds to the priority hierarchy from the connection of the group associated with the highest priority level to the connection of the group associated with the lowest priority level.

39. (original) The apparatus according to Claim 38, wherein each connection is established by a connection establishment request message, the connection establishment request message including a priority indicator, traffic rate information, an identification of a source of a corresponding connection, and an identification of a destination of the corresponding connection, wherein the priority indicator and traffic rate for each connection is obtained by the apparatus from the corresponding connection establishment request message through the connecting means.

40. (original) The apparatus according to Claim 39, wherein the directing means comprises a means for transmitting release messages, and wherein the transmitting means releases each connection in said release list by transmitting a release message to the source of a connection in said release list.

41. (original) The apparatus according to Claim 40, wherein the logical trunk comprises a plurality of physical links.

42. (original) The apparatus according to Claim 41, wherein the connection-oriented communications network is an ATM communications network.

43. (currently amended) The apparatus according to Claim 42, wherein the logical trunk is an IMA trunk comprising a plurality physical links, and said carrying capacity is determined by the number of operative said physical links making up the IMA trunk .

44. (original) The apparatus according to Claim 43, wherein the compiling means enumerates connections associated with a common level of priority in the release list in a sequence corresponding to the traffic rates of the connections.

45. (original) The apparatus according to Claim 44, wherein the controller enumerates connections associated with a common level of priority in the release list in a sequence from the connection having the lowest traffic rate to the connection having the highest traffic rate.

46. (original) The apparatus according to Claim 41, wherein the apparatus is provided within the first network entity.

47. (new) A method for the ordered release of switched connections from a network entity in a signaling communications network, the switched connections being routed across the communications network along respective connection paths established therefor between source and destination entities in response to a connection establishment request message propagated over a signaling link, the connection paths each traversing the network entity via network entity interfaces provided with the network entity through which said connections are routed, and wherein the source entities initiate re-establishment of the connections in the event of connection failure in the order in which connection release messages are received thereby, the method comprising the steps of:

associating a priority indicator with each of the switched connections, the priority indicator being selected from a priority hierarchy comprised of a plurality of priority levels which varies from highest priority to lowest priority; and

upon detection of failure, due to a network outage, of a signaling link or port which is associated with a number of switched connections, propagating connection release messages from the network entities on either side of the failure respectively toward the source entity and destination entities for every switched connection of said

number of switched connections which the failure of said signaling link or port has disrupted whereby the switched connections are progressively released at each network entity traversed as the connection release messages propagate out toward the source and destination entities; and

and wherein said connection release messages are sent toward said source or destination entity in a sequence which corresponds to the priority hierarchy from the switched connection associated with the highest priority level to the connection associated with the lowest priority level; and

wherein the step of releasing the connections comprises the steps of:

compiling, upon detection of said failure of said signaling link or part, an ordered release list comprising every connection of said number of switched connections; and

releasing the switched connections in the ordered release list in a sequence which corresponds to the priority hierarchy from the connections associated with the highest priority level to the connection associated with the lowest priority level.

48.(new) The method according to Claim 47, wherein the compiling of the ordered release list comprises the steps of inserting each connection of said number of connections into a table in a location corresponding to the priority level associated with the connection such that the connections in the table are ordered in a sequence from the connection associated with the highest priority level to the connection associated with the highest priority level.

49. (new) The method according to Claim 48, wherein the connection establishment request message includes the priority indicator, an identification of a source of the corresponding connection, and an identification of a destination of the corresponding connection.

50. (new) The method according to Claim 49, wherein the priority indicators are associated with their respective connection in a look up table in a memory in the network entity.

51. (new) The method according to Claim 47, wherein the signaling communications network is an ATM communications network.

52. (new) The method according to Claim 51, wherein each connection is associated with a traffic rate, and connections associated with a common level of priority are listed in the release list in a sequence corresponding to the traffic rates of the connections.

53. (new) The method according to Claim 52, wherein connections in the release list associated with a common level of priority are ordered in sequence from the connection having the highest traffic rate to the connection having the lowest traffic rate.

54.(new) An apparatus for the ordered release of switched connections in a signaling communications network, the switched connections being routed across a network entity in the communications network along respective connection paths therefor between source and destination entities in response to an establishment request message propagated over a signaling link, and wherein the source entities initiate re-establishment of the connections in the event of connection failure in the order in which connection release messages are received thereby, the connection paths each traversing the network entity via network entity interfaces provided with the network entity and through which said connections are routed, the apparatus comprising:

(a) a memory for storing a priority indicator associated with each of the switched connections, the priority indicator being selected from a priority hierarchy which varies from highest priority to lowest priority;

(b) said memory comprising a look-up table and each connection being stored with a priority indicator in said look-up table;

(c) means for directing the sending of connection release messages for every connection of a number of switched connections toward said source and destination entitities upon failure of a signaling link or a port associated with said number of switched connections from the network entities on either side of the failure, and said connection release messages being sent in a sequence corresponding to the priority hierarchy from the connection associated in the storing means with the highest priority level to the connection associated in the storing means with the lowest priority level; and

(d) said directing means compiling an ordered release list in the memory upon indication of the network outage to the apparatus, the compiling means enumerating in the ordered release list every connection of said number of connections in order from the

connection associated with the highest priority level to the connection associated with the lowest priority level.

55. (new) The apparatus according to Claim 54, wherein each connection is established by a corresponding connection establishment request message received by the network entity, the connection establishment request message including a priority indicator, an identification of a source of the corresponding connection, and an identification of a destination of the corresponding connection, wherein the priority indicator for each connection is obtained by the apparatus from the corresponding connection establishment request message through the connecting means.

56. (new) The apparatus according to Claim 54, wherein the network outage is a failure of a signaling link corresponding to said number of connections, said signaling link being for communicating administrative information concerning operation of said number of connections.

57. (new) The apparatus according to Claim 56, wherein the signaling communications network is an ATM communications network.

58. (new) The apparatus according to Claim 57, wherein each connection is associated in said look-up table with a traffic rate, and the compiling means lists connections associated with a common level of priority in the release list in a sequence corresponding to the traffic rates of the connections.

59. (new) The apparatus according to Claim 54, wherein the compiling means enumerates connections associated with a common level of priority in the release list in sequence from the connection having the highest traffic rate to the connection having the lowest traffic rate.